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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
SAADAT, CAMERON	

ART UNIT	PAPER NUMBER
3713	

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/950,097	STYLINSKI ET AL.	
	Examiner	Art Unit	
	Cameron Saadat	3713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/26/2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4,6,7,9-11,13-16 and 18-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4,6,7,9-11,13-16 and 18-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

In response to amendment filed 10/26/2004, claims 1, 4, 6-7, 9-11, 13-16, and 18-22 are pending in this application. Claims 2-3, 5, 8, 12, and 17 are cancelled.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 4, 6-7, 9-11, 13-16, and 18-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding claim 1, the claimed feature, "allowing a remotely-located user...to interact with actual flight management system software...wherein the server portion comprises said *actual flight management system software*", is not clearly supported in applicant's specification. Instead, the specification discloses *a simulation program based* upon the same code that is used in an aircraft (See Spec. P. 12, line 17 – P. 13, line 6). In addition, independent claims 7 and 15 incorporate similar claimed features of *providing software code used in an actual aircraft component*, also not supported by applicant's specification.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 4, 6-7, 9-11, 13-16, and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Huffman et al. (USPN 6,053,736; hereinafter Huffman) in view of Lin (USPN 6,478,581 B1), further in view of Darago et al. (USPN 6,170,014 B1; hereinafter Darago), still further in view of Salisbury "Web-Based Simulation Visualization using Java3D".

This holding, incorporated herein, is maintained from the prior action for the cited claims as amended. Response to the applicant's remarks are provided below and incorporated herein.

Regarding claims 1, 7, and 15, Huffman discloses a content-providing system for a flight simulator, allowing a remotely-located user to access a distributed interactive simulation (DIS) via a local area network, the system comprising: a gateway having an interface to a digital network; and at least one general-purpose host computer system 16 executing a server portion of the flight simulator program; wherein the gateway is operable to connect to the server portion from a user executing a client portion 11 of the flight simulator program over the digital network (Col. 4, lines 49-55), and to establish a connection between the client portion and the server portion such that primary processing for the flight simulator takes place at the server portion, and such that interface updates are processed at said client portion (Col. 5, lines 8-12). Huffman does not explicitly use the term "simulation card. It is noted that applicant's specification describes a "simulation card" in the specification, as "cards that execute programs that are to be accessed by users across a network" (Applicant's specification, P. 3, Paragraph 28). Accordingly, Huffman discloses a memory card 17 comprising simulation programming wherein

memory card 17 may reside on the host computer 16 for delivering simulation data to client portion 11 (Huffman, Col. 7, lines 56-61).

Huffman discloses simulation programming for simulating an actual aircraft. Huffman does not explicitly disclose the feature of using code of an actual flight management system (as per claim 1) or code from an actual aircraft component (as per claims 7 and 15). However, it is noted by the examiner that the purpose of a simulation system is to closely emulate an actual system. Therefore, if not implicit, it would be obvious to an artisan to utilize various aspects of an actual system in order to provide a realistic simulation system. In addition, Lin discloses a networked flight simulation system wherein simulation code is derived from an actual aircraft component (Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64) Hence, in view of Lin, it would have been obvious to one of ordinary skill in the art to modify the simulation described in Huffman, by providing a simulation comprising code derived from an actual aircraft component in order to simulate real avionics equipment in a flight simulator environment, thereby providing a more realistic simulation for providing training (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-51).

The combination of Huffman and Lin discloses all of the claimed subject matter of claims 1, 7, and 15 with the exception of explicitly disclosing a database operable for providing authentication information of a user. However, Darago discloses a system for providing a flight simulator (Col. 1, lines 30-32) via a network, wherein the system accesses database 302 and 408 to verify user authentication information and billing information (Col. 10, lines 44-61). Hence, in view of Darago, it would have been obvious to an artisan to modify the storage unit described in the combination of Huffman and Lin, by providing a database comprising user authentication information, in order to protect licensed content and to limit use of the content to registered users that are charged accordingly for usage.

The combination of Huffman, Lin, and Darago does not explicitly disclose a "browser" (as per claims 1, 7, and 15). However, it is the examiner's position that it is well known to utilize a browser

program for providing an interface for a user in a network system. In addition, Salisbury discloses a web-based simulation system comprising a browser (see Fig. 2; P. 1427). Thus, in view of Salisbury, it would have been obvious to one of ordinary skill in the art to modify the user interface described in the combination of Huffman, Lin, and Darago, by providing a browser, in order to deliver a 3D simulation from a web-server.

Additionally, Huffman discloses a flight simulator accessed through a distributed interactive simulation (DIS) via a local area network, and a host computer 16 that transfers data to client computer 11. Huffman does not explicitly disclose a *public* digital network between host computer 16 and client computer 11. However, it is the examiner's position that providing computerized training, in particular flight simulation training, over a *public* network is notoriously well known in the art for providing training to users at a number of distributed sites, thereby overcoming geographical limitations. Furthermore, both Darago (Col. 9, lines 25-52) and Salisbury (See Abstract; Fig. 1) provide training over a public digital network. In particular, Salisbury describes a *distributed interactive simulation* (DIS) paradigm similar to that of Huffman. Clearly, one of ordinary skill in the art would be motivated to modify the distributed interactive simulation (DIS) described in Huffman, by providing the (DIS) over a *public* digital network, such as the Internet, in order to provide simulation and training to users at a number of distributed sites, thereby overcoming geographical limitations (See Salisbury See Abstract; Fig. 1).

Regarding claims 4 and 9-10, the combination of Huffman and Lin does not explicitly disclose that the gateway is configured to "update billing information" (as per claim 4) according to "time of usage" as per claims 9-10. However, Darago discloses a system for delivering simulator content or training content (Col. 1, lines 30-32) over a network, wherein meter manager 406 monitors and updates a user's usage of content for billing purposes (Col. 15, lines 12-20). Hence, in view of Darago, it would

have been obvious to an artisan to modify the system described in the combination of Huffman and Lin, by tracking and updating billing information, in order to charge users based on usage of licensed content.

Regarding claims 6, 13, and 18, Huffman discloses all of the claimed subject matter with the exception of explicitly disclosing that the actual aircraft component is a flight management system (FMS). However, Lin discloses a networked flight simulation system wherein simulation code is derived from an actual flight management system (Col. 2, lines 20-25; Col. 8, line 31; Fig. 2). Hence, in view of Lin, it would have been obvious to a person of ordinary skill in the art to modify the simulation described in Huffman, by providing a simulation comprising code derived from an OFP – operational flight program in order to simulate real avionics equipment in a flight simulator environment (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-51).

Regarding claims 11 and 16, Huffman discloses a program that is an aircraft simulation program (See Abstract).

Regarding claim 14, Huffman does not explicitly use the term "simulation card. It is noted that applicant's specification describes a "simulation card" in the specification, as "cards that execute programs that are to be accessed by users across a network" (Applicant's specification, P. 3, Paragraph 28). Accordingly, Huffman discloses a memory card 17 comprising simulation programming wherein memory card 17 may reside on the host computer 16 for delivering simulation data to client portion 11 (Huffman, Col. 7, lines 56-61).

Regarding claims 19-22, Huffman discloses a flight simulation system provided via a network, wherein the network is (as per claims 19 and 21) a distributed interactive simulation network (see Fig. 1); and (as per claims 20 and 22) wherein the network is a high-level architecture network (see Abstract).

Response to Arguments

Applicant's arguments filed 10/26/2004 have been fully considered but they are not persuasive. Applicant emphasizes that Huffman does not disclose the use of software code used in an actual aircraft. Initially it is noted that applicant's specification does not support this feature, but instead supports the feature of providing a simulation program *based upon* the same code that is used in an actual aircraft. Even assuming that the specification supports the use of software code used in an actual aircraft, the claims would still fail to patentably distinguish over the cited prior art. It is noted by the examiner that the purpose of a simulation system is to closely emulate an actual system. Therefore, if not implicit, it would be obvious to an artisan to utilize various aspects (code) of an actual system in order to provide a realistic simulation system. In addition, Lin discloses a networked flight simulation system wherein simulation code is provided from an actual aircraft component (Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64) Hence, in view of Lin, it would have been obvious to one of ordinary skill in the art to modify the simulation described in Huffman, by providing a simulation comprising code derived from an actual aircraft component in order to simulate real avionics equipment in a flight simulator environment, thereby providing a more realistic simulation for providing training (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-51).

Applicant further asserts that Lin simply describes a cabling scheme that allows an actual aircraft component to be physically wired into a simulation device; however does not disclose an environment whereby a server program comprising software code used in an actual aircraft component executes on a processing card that resides within a general-purpose computer. However, the examiner has not relied entirely upon Lin to disclose this purported missing feature. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references.

Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

The standard of patentability is what the prior art, taken as a whole, suggests to an artisan at the time of the invention. *In re Merck & Co., Inc., 800 F.2d 1091,1097, 231 USPQ 375, 379 (Fed. Cir. 1986).* The question is not only what the references expressly teach, but what they would collectively suggest to one of ordinary skill in the art. *In re Simon, 461 F.2d 1387, 1390, 174 USPQ 114, 116 (CCPA 1972).* In this case, Huffman discloses a flight simulator accessed through a distributed interactive simulation (DIS) via a local area network, and a host computer 16 that transfers data to client computer 11. Huffman does not explicitly disclose the feature of using code of an actual flight management system (as per claim 1) or code from an actual aircraft component (as per claims 7 and 15). However, it is noted by the examiner that the purpose of a simulation system is to closely emulate an actual system. Therefore, if not implicit, it would be obvious to an artisan to utilize various aspects of an actual system in order to provide a realistic simulation system. In addition, Lin discloses a networked flight simulation system wherein simulation code is derived from an actual aircraft component (Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64) Hence, in view of Lin, it would have been obvious to one of ordinary skill in the art to modify the simulation described in Huffman, by providing a simulation comprising code derived from an actual aircraft component in order to simulate real avionics equipment in a flight simulator environment, thereby providing a more realistic simulation for providing training (See Lin, Col. 1, lines 19-25,Col. 2, lines 20-25, 62-64; Col. 4, lines 49-51).

Applicant further emphasizes that Huffman does not disclose the various gateway functions described in the claims (e.g. authentication, establishing connections between separate client and server portions, etc). However, the examiner does not rely on Huffman for the claimed authentication feature. Instead, the examiner still maintains that Darago teaches the feature of providing a flight simulator (Col. 1, lines 30-32) via a network, wherein the system accesses database 302 and 408 to verify user

authentication information and billing information (Col. 10, lines 44-61; and in view of Darago, it would have been obvious to an artisan to modify the storage unit described in the combination of Huffman and Lin, by providing a database comprising user authentication information, in order to protect licensed content and to limit use of the content to registered users that are charged accordingly for usage.

Applicant argues that there is no suggestion to combine the references. The examiner respectfully disagrees. "There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art." *In re Rouffet, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998).*

Applicant additionally purports that the mere fact that four separate references need to be combined to anticipate any of applicant's claims implies strongly in favor of novelty and patentability; and at the very least, there is no showing on the record of why a person skilled in the art would seek to combine the four references. The examiner respectfully disagrees and recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The examiner has clearly provided citations of motivation statements that are derived from the references.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH

shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cameron Saadat whose telephone number is (571) 272-4443. The examiner can normally be reached on M-F 9:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Xuan Thai can be reached on (571) 272-7147. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CS

JOHN M. HOTALING, II
PRIMARY EXAMINER